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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,063	10/09/2001	Hiroshi Kokubunji	4041K-000037	7635

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EXAMINER
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FLANIGAN, ALLEN J

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 02/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/974,063

Applicant(s)

KOKUBUNJI ET AL.

Examiner

Allen J. Flanigan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohashi et al.

The heat exchanger of Ohashi et al. is clearly structurally identical to that claimed in claim 1, providing three discrete flow paths via separators 10, 11 which subdivide the headers into different regions. Regarding claims 3-5, recitations that concern the intended use of the device (how it will be oriented in use, or what fluid applicants intend to flow through the different sections in use) cannot distinguish the claimed structure. At most, such recitations require that the prior art structure be capable of such use, which Ohashi et al. clearly is. ***Ex parte Masham, 2 USPQ2d 1647.***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claim 9 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ohashi et al.

Although a full translation is not readily available for Ohashi et al., the indication that the disclosure is assigned to Showa Aluminum supports the conclusion that the inserted partitions 10, 11 are held in place by brazing (this is the conventional method used for such partitioned, tubular headers in most if not all Showa Aluminum heat exchangers). Even if Ohashi et al. do not explicitly or implicitly disclose such a feature, it is notoriously well known in the art to assemble aluminum heat exchanger components with brazing, and citation of a reference to such effect is considered unnecessary. ***In re Malcolm*, 54 U.S.P.Q. 235.**

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohashi et al. in view of Chartet.

It is well known in the art to assemble heat exchanger components by brazing them, as the Examiner noted above in taking Official notice of the well known nature of such a feature. Chartet shows that in forming such brazed assemblies, it is known to apply the flux to the components being brazed after they are preassembled. In view of this, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to braze the components of Ohashi et al. and to apply a flux coating after first assembling them mechanically. Regarding claim 11, this claim again merely recites well known steps that are commonly applied in the art for brazed heat exchangers

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(inspecting the brazed assembly to ensure proper brazing, and/or repairing any improperly brazed articles). The Examiner hereby takes official notice of the well-known nature of inspecting and repairing manufactured heat exchanger assemblies. *In re Malcolm, supra.*

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohashi et al. in view of Ando, O'Connor, and Panthofer.

The distinction between one piece and two-piece manifold assemblies in the heat exchanger art is generally considered to be obvious. Both variations, and their advantages and disadvantages, are known to those skilled in the art. Ando specifically show the recognized equivalency in the art between one piece and two piece headers. Panthofer show that it is known to provide a dual fluid "combination" heat exchanger using partitions provided in a two-piece header assembly. O'Connor shows that two piece, partitioned headers of both all aluminum and plastic and aluminum construction are known. Thus, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to construct the header of Ohashi et al. out of two pieces instead of one, or to make the tank portion from either aluminum or plastic.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tajima et al. and Matsuzaki et al. are cited as alternatives to Chartet. The November 1994 "Research Disclosure" anticipates applicants' intended use

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of a multiple flow path heat exchanger such as shown in Ohashi et al. by several years.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen J. Flanigan whose telephone number is (703) 308-1015. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on (703) 308-0101. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7764 for regular communications and (703) 305-3463 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.



Allen J. Flanigan  
Primary Examiner  
Art Unit 3743

AJF  
February 13, 2003